

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 95-039
NPDES PERMIT NO. CA0038610

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

CITY AND COUNTY OF SAN FRANCISCO
BAYSIDE WET WEATHER FACILITIES INCLUDING THE
NORTH POINT WATER POLLUTION CONTROL PLANT
SAN FRANCISCO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The City and County of San Francisco, hereinafter called the discharger, submitted a report of waste discharge dated December 22, 1993 for reissuance of NPDES Permit No. CA0038610 for Bayside Wet Weather Facilities. The discharger also submitted an application for reissuance of NPDES Permit No. CA0037672 for the North Point Water Pollution Control Plant. North Point Water Pollution Control Plant is one of the major components of San Francisco's bayside wet weather wastewater treatment, storage and collection system. Since the permits CA0038610 and CA0037672 regulate two different components of the same Bayside Wet Weather wastewater treatment system, this permit will combine the two NPDES permits into one.
2. The discharger collects the wastewater in a combined sewer system. That is, the domestic sewage, industrial wastewater, and storm water runoff are all collected in the same pipes (combined sewer). Most other communities in California have a separated sewer system: one set of pipes for domestic sewage and industrial waste and another set for storm water.
3. The discharger presently discharges domestic and industrial wastewater mixed with storm water runoff, all containing pollutants, into San Francisco Bay, a water of the United States through any of twenty-nine (29) wet weather diversion structures. The locations of the diversion structures are listed in Table 1. The geographic locations of the diversion structures are listed in Table 2. At the present time, two types of discharges are involved. In the locations (Islais Creek) where the control structures (storage/transport) are not yet complete, the discharges are untreated. These Combined Sewer Overflows (CSO) occur when rainfall intensity exceeds approximately 0.02 inches per hour. These discharges will cease in 1996 when the Islais Creek control facilities are completed.

4. The remaining discharges occur only when the storm flow exceeds the combined storage capacity of the storage/transport and the capacity of the pumping facilities to transfer flows to the treatment plants. These control facilities have been designed so that on average these discharges will occur only 4 times per year in the North Point Sewerage Zone and 10 times per year in the Southeast Sewerage Zone and one per year for the area south of Islais Creek.
5. The discharges to the receiving water from the storage/transport through the diversion structures have received flow-through treatment to remove settleable solids and floatables. This treatment is equivalent to the minimum treatment specified by the *Combined Sewer Overflow Control Policy* (59 FR 18688) for the "Presumption" Approach. The majority of storm flows which were previously discharged as combined sewer overflows now receive either primary-level treatment or secondary-level treatment at the Northpoint Water Pollution Control Plant and the Southeast Water Pollution Control Plant (WPCP).
6. The Bayside Wet Weather Diversion Structures are one component of San Francisco's Bayside wastewater treatment system. This integrated system has been designed to provide control and treatment for both dry weather sewage and wet weather storm flows. All dry weather flows receive secondary level treatment. At program completion in 1996, all wet weather flows including storm water runoff will be captured and will receive a specified level of treatment depending on the size of the storm. All solids which settle out in the storage/transport are flushed to the treatment plant after the rainstorm subsides.
7. The North Point (WPCP) treats exclusively wet weather flow consisting of a combination of domestic and industrial wastewater mixed with storm water runoff. The North Point Water Pollution Control Plant is not a publicly owned treatment works (POTW) as such is defined in 40 CFR 122.2. The treatment level at this wet weather facility is equivalent to the minimum treatment specified by the *Combine Sewer Overflow Control Policy* (59FR 18688) for the "Presumption" approach. The treatment consists of primary sedimentation and clarification, disinfection and dechlorination. The treated wastewater is discharged through four forty-eight inch diameter outfalls which terminate 800 feet offshore, two at the end of Pier 33 and two at Pier 35. The discharges are submerged at a depth of 17-26 feet below mean lower low water. Wet weather operation of the North Point WPCP depends upon the coordinated operation of all the Bayside combined wastewater control system facilities. These facilities consist of the North Shore Outfall consolidation, North Point WPCP, North Shore Pump Station, Channel Outfall consolidation, Channel Pump Station, Islais Creek South Side Outfall consolidation, and the Southeast WPCP. The geographic coordinates of the North Point WPCP outfall are as follows:

Pier 33	37 48' 25"	122 24' 11"
Pier 35	37 48' 36"	122 24' 20"

An opinion by the U.S. EPA's Office of General Counsel has classified facilities that treat combined sewer overflows as point sources subject to section 301(b)(1)(A) of the Clean Water Act. Thus, they are not Publicly Owned Treatment Works (POTWs) subject to the secondary treatment regulations of 40 CFR 133. This opinion is supported by subsequent case law (646 F.2d 568(1980); Montgomery Environmental Coalition v. Coslte).

8. Wet weather flows are intermittent in nature and subject to a high degree of variability throughout the wet weather season. Based on past rainfall records, the North Point WPCP will be operated approximately 30-40 times per wet season, with the duration of each operation expected to average approximately 12 hours at maximum flow rate of approximately 140 mgd. The sanitary fraction in controlled overflows will average 8% upon completion of all Bayside wet-weather facilities.
9. In September 1990, San Francisco submitted to the Board a program plan which described the implementation of its Water Pollution Prevention Program. This program is intended to prevent the disposal of toxic substances to the sewer system. This program is ongoing. The City's ongoing pollution prevention program is also an integral component of the wastewater treatment system and provides added measures to protect the receiving waters.
10. In 1979 the Board issued Order No. 79-67 for the wet-weather facilities. Based on the Regional Board's staff findings and evidence presented at the public meeting concerning the cost differences of facilities necessary to achieve specific overflow frequencies and the water quality benefits derived from construction of those facilities and considering the location and intensity of existing beneficial uses; a long term average of 4 overflows per year for diversion structures No. 9 through 17, a long term average of 10 overflows per year for diversion structures No. 18 through 35 and an average of 1 overflow per year for diversion structures No. 36 through 43 will provide adequate overall protection of beneficial uses.
11. In Order No. 84-28 the Board concluded that the exception to discharge prohibitions against discharge of waste to dead-end sloughs and where initial dilution is less than 10:1 are consistent with the Basin Plan. A report submitted by the discharger to the Board in March 1980 concluded that an inordinate financial burden would be placed upon the discharger relative to the increased protection of beneficial uses that would be gained by requiring a minimum initial 10:1 dilution of wastes.

12. In the past, prior to the construction of the wet weather storage/transport systems these combined sewage overflow occurred 46 times per year (Bayside average). The excess flow was discharged through 39 shoreline overflow structures distributed around the periphery of the City. These structures range in size from 18" diameter pipes to quadruple 8'3" x 9'6" box culverts. The composition of these overflows can range from approximately 2 parts sanitary flow to one part runoff to great than 50 parts runoff to one part sanitary flow and the duration of overflows can range from a few minutes to a few days.
13. In response to objectives set forth by the City's 1974 Master Plan Environmental Impact Statement and Report, as of December 1993 the City has spent over 1.1 billion dollars on various construction programs to reduce the water quality impact from the combined sewer system. The City has made good progress and has substantially completed the waste projects needed to control combined sewer overflows. The program is continuing and all projects are expected to be completed in 1996. Consequently, the discharger program qualifies for the CSO Control Policy's classification under Section I.C. as being substantially complete and exempt from the planning and construction requirements. The following table summarizes the current status of Master Plan project.

Master Plan Projects ⁽¹⁾
Cost(\$000's) Estimates and Expenditures to Date

<u>Current Projects</u>	<u>Estimated Costs</u>	<u>Expended By Dec. 31, 1993</u>
Bayside Core (completed) ⁽²⁾	\$ 409,350	\$ 409,350
Westside Core (completed) ⁽²⁾	\$ 345,496	\$ 344,516
Oceanside Plant	\$ 256,217	\$ 240,341
Southeast Facilities	\$ 354,344	\$ 161,803
Richmond & Lake Merced Transport	<u>\$ 81,586</u>	<u>\$ 33,922</u>
TOTAL MASTER PLAN PROJECTS	\$1,446,993	\$1,189,932

⁽¹⁾ Does not include Bayside Discharge Improvements
Source: City and County of San Francisco Department
of Public Works.

⁽²⁾ see attachment B

14. During wet weather, the City and County of San Francisco's Southeast Water Pollution Control Plant converts to the wet weather operations mode and provides secondary treatment up to 150 MGD (normal dry weather flow is approximately 65 to 70 MGD). During larger storms, the plant provides an additional 60 MGD of primary-only treatment (for a total wet weather treatment capacity of 210 MGD). In 1996, the discharger will complete improvements which will provide an additional 40 MGD of wet-weather primary capacity. Thus, the total wet weather capacity will be 250 MGD.
15. On April 11, 1994, the Federal EPA adopted the Combined Sewer Overflow (CSO) Control Policy (50FR 18688). This Policy establishes a consistent national approach for controlling discharges from CSOs to the Nation's water through the NPDES permit program. The discharger is served almost 100% by combined sewers and thus is directly affected by the Policy. Based on the Board's staff evaluation, the CSO control requirements in this NPDES Permit for the Wet-weather Diversion Structures (CA0038610) are in compliance with the policy.
16. The discharger has demonstrated implementation of the nine minimum control technologies as specified in the CSO Policy. These nine minimum control technologies are equivalent to the Clean Water Act (CWA) requirements in Section 301 (b)(2) that permits contain effluent limitation which:
 - a. Control toxic pollutants through the use of Best Available Technology Economically Achievable (BAT),
 - b. Represent Best Conventional Pollutant Control Technology (BCT).
 - c. Control non-toxic, non-conventional pollutants through the use of Best Available Technology Economically Achievable (BAT).
17. The discharger has substantially completed its CSO control program and has otherwise demonstrated compliance with section I.C.1 of the CSO Control Policy which allows grandparenting for the purposes of not preparing a (new) CSO long-term plan.
18. The discharger has demonstrated compliance with the "presumption" approach for compliance during wet weather with water quality standards.
19. The discharger's implementation of it's wastewater master plan appropriately considered sensitive areas as required in the CSO Control Policy.
20. This Order, in Section B. Effluent Limitations and E. Provisions, implements the provisions of the Policy that relate to operation of the Southeast Water Pollution Control Plant.

21. During wet weather, San Francisco operates its treatment facilities at the maximum capacity compatible with safe operation and thus is in compliance with the Policy provisions which allow for the discharge during wet weather of combined sewer flows which have received primary-only treatment.
22. On June 15, 1988, the Board adopted Order 88-105, revising Order 84-29 to extend compliance dates for some waste water transport and storage facilities, including the Sunnydale, Mariposa, and Islais Creek transports. All except the Islais Creek facilities have been completed. The Islais Creek facilities are scheduled for completion in 1996.
23. The Basin Plan contains water quality objectives and beneficial uses for Central San Francisco Bay. The beneficial uses of Central San Francisco Bay are as follows:
 - Industrial Service Supply
 - Navigation
 - Water Contact Recreation
 - Non-contact Water Recreation
 - Wildlife Habitat
 - Preservation of Rare and Endangered Species
 - Fish Migration
 - Fish Spawning
 - Shellfish Harvesting
 - Estuarine Habitat
24. The discharger has implemented and is maintaining an USEPA approved pretreatment program in accordance with Federal pretreatment regulations (40 CFR 403).
25. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.
26. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.
27. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written views and recommendations.

28. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of dry-weather waste from the wet weather facilities is prohibited.
2. Discharge to waters of the State is prohibited except as defined below. The discharger shall design and construct facilities for wet weather combined sewage discharge structures no. 9 to 17 to achieve a long term average of 4 overflow per year from these facilities, to design and construct facilities for diversion structures no. 18 to 35 to achieve a long term average of 10 overflows per year, and to design and construct facilities for diversion structures No. 36 through 43 to achieve a long term average of 1 overflow per year. These long term design criteria will not be used to determine compliance or non-compliance with this prohibition. The Board recognizes that some years are wetter than others and that the facilities will not be able to reduce the number of overflows to the long-term design averages during all years, the Board should retain the authority to require corrective actions if the facilities consistently fail to meet the design long-term overflow averages during dry years.
3. Discharge at any point from the North Point Water Pollution Control Plant where the wastewater does not receive an initial dilution of at least 10:1 is prohibited.
4. Discharge of dry-weather waste from the North Point Water Pollution Control Plant is prohibited.

B. EFFLUENT LIMITATIONS for Bayside Wet Weather Facilities

- I. The discharger shall comply with the following technology-based limits for the Bayside Wet Weather Diversion Structures (Nine Minimum Controls):
 1. Conduct proper operations and regular maintenance programs. The permittee shall implement the Operations and Maintenance Plan for the combined sewer system that will include the elements listed below. The

permittee also shall update the plan to incorporate any changes to the system and shall operate and maintain the system according to the plan. The permittee shall keep records to document the implementation of the plan.

a. Designation of a Manager for Combined Sewer Overflows.

The permittee shall designate a person to be responsible for the wastewater collection system and serve as the contact person regarding combined sewer overflows. The permittee shall notify the permitting authority within 90 days of designation of a new contact person.

b. Inspection and Maintenance of CSS.

The permittee shall inspect and maintain all overflow structures, regulators, pumping stations, and tidegates to ensure that they are in good working condition and adjusted to minimize overflows and prevent tidal inflow. The permittee shall inspect, or cause to be inspected, each overflow outfall at least once per year. The inspection shall include, but is not limited to, entering the regulator structure if accessible, determining the extent of debris and grit build-up, and removing any debris that may constrict flow, cause blockage, and result in a dry weather overflow. The permittee shall record in a maintenance log book the results of the inspections. For overflow outfalls that are inaccessible, the permittee may perform a visual check of the overflow pipe to determine whether or not the overflow is occurring during dry weather flow conditions.

c. Provision for Trained Staff.

The permittee shall provide an adequate number of full-time equivalents to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit. Each member of the staff shall receive appropriate training.

d. Allocation of Funds for Operation and Maintenance.

The permittee shall allocate adequate funds specifically for operation and maintenance activities. The permittee shall submit a certification of assurance that the necessary funds, equipment, and personnel have been or will be committed to carry out the O&M plan.

2. Maximize use of the collection system for storage. The permittee shall continue to maximize the inline storage capacity. (Note: This provisions refers to using the sewers for storage to the maximum extent possible. It does not refer to the storage/transport.)
3. Review and modify pretreatment program. The permittee shall continue to implement selected controls to minimize the impact of non- domestic discharges. The permittee shall re-evaluate every 3 years whether additional modifications to its pretreatment program are feasible or of practical value. The permittee shall keep records to document this evaluation and to document implementation of the selected controls to minimize non-domestic discharges.
4. Maximize flow to POTW treatment plant (Southeast Water Pollution Control Plant). The permittee shall operate the POTW treatment plant at a maximum treatable flow during wet weather flow conditions. Initially the peak wet-weather flow (PWWF) capacity of the plant will be 210 MGD. Upon completion of improvements to the plant the PWWF capacity will increase to 250 MGD. The permittee shall report rainfall and flow data to the Board as part of the Self-Monitoring Report for either the Southeast Water Pollution Control Plant or the Wet Weather Facilities.

The discharger has prepared a facilities operation plan in accordance with the provisions of Discharge Prohibition A.2 of order 89-102. This operation plan was developed to achieve the following objectives.

- a. Maximize the volume of wastewater treated (at either the Southeast or North Point Treatment Plant and discharged via deep water outfalls, consistent with the hydraulic and treatment capacities of the discharger's storage, transport and treatment facilities, and
- b. Assure that all dischargers from the diversion structures are first baffled to reduce floatables volume.

The discharger's conformance to the operation plan will constitute compliance with this prohibition. Conversely, failure to comply with the plan will consist of non-compliance with this prohibition. Regional Board staff should assess conformance with the above objectives to assess compliance. The discharger may propose amendments which are also subject to Executive Officer review and approval. (The operation plan may be part of the discharger's Operation and Maintenance Manual)

5. Prohibit combined sewer overflows during dry weather. Dry weather overflows from overflow outfalls are prohibited. (see Prohibition No.1.) All dry weather overflows must be reported to the permitting authority within 24 hours of when the permittee become aware of a dry weather overflow. When the permittee detects a dry weather overflow, the permittee shall begin corrective action immediately.

The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated. The permittee shall record in the inspection log book dry weather overflows, as well as the cause, corrective measures taken, and the dates of the beginning and cessation of overflow.

6. Control solid and floatable materials in CSOs. The permittee shall continue to implement measures to control solid and floatable materials in its overflows.

These measures shall include:

- (a) Ensure that all overflows from the diversion structures are baffled or that other means are used to reduce the volume of floatables.
- (b) Remove solid or floatable materials captured in the storage/transport in an acceptable manner prior to discharge to the receiving water.

7. Develop and implement pollution prevention program.

The permittee shall continue to implement a pollution prevention program focused on reducing the impact of treated and untreated overflows on receiving waters. The permittee shall keep records to document pollution prevention implementation activities.

This program shall include:

- (a) Conducting street sweeping and catch basin modification or cleaning at a frequency that will prevent large accumulations of pollutants and debris.
- (b) Conducting a public education program that informs the public of the permittee's pollution prevention program and requirements.

8. Notify the public of overflows.

The permittee shall continue to implement a public notification plan to inform citizens of when and where overflows occur. The process must include:

- (a) A mechanism to alert persons using all receiving bodies of water affected by overflows.
- (b) A system to determine the nature and duration of conditions that are potentially harmful to users of these receiving water bodies due to overflows.

Specifically, warning signs shall be posted at sites when water contact recreation is enjoyed by the public whenever there is a discharge from the diversion structures. Such warning signs should be posted on the same days as the overflow unless the overflow occurs after 4:00 PM, in which case the signs should be posted by 8:00 am the next day. The warning signs should remain up until receiving water analyses indicate that Basin Plan objectives for swimming or other water contact recreation are being met. The current practice of posting signs for the entire wet weather season may continue at beaches adjacent to diversion structures not yet meeting the required overflow frequency, until such time as new facilities are put into service to reduce overflow frequency.

The discharger shall keep records documenting public notification.

9. Monitor to effectively characterize overflow impacts and the efficacy of CSO controls.

The permittee shall regularly monitor overflow outfalls to effectively characterize overflow impacts and efficacy of CSO controls.

C. EFFLUENT LIMITATIONS FOR NORTH POINT WATER POLLUTION CONTROL PLANT

The final effluent from the North Point Water Pollution Control Plant discharged into the deepwater outfall shall not exceed the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Monthly Average</u>	<u>Instantaneous Maximum</u>
a. Settleable Matter	ml/lhr	0.5	1.5
b. Oil & Grease	mg/l	20	40
c. Total Chlorine Residual ⁽¹⁾	mg/l	---	0.0

- (1) Requirement defined as below the limit of defection in standard test methods"
- d. Fecal Coliform Bacteria: The 30-day moving median value for fecal coliform density in final effluent samples shall not exceed 500 CFU/100 ml, nor shall more than 10% of the samples equal or exceed 1100 CFU/100 ml.
- e. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.
- f. Effluent shall be essentially free of material that is floatable or will become floatable upon discharge.
- g. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassay shall achieve a 90% value of not less than 50% survival based on the ten most recent consecutive sample.

D. RECEIVING WATER LIMITATIONS

- 1. The discharger shall not discharge any pollutant at a level that could cause or contribute to a violation of California water quality standards.

The discharge of waste shall not cause the following conditions to exist in waters of the State beyond the immediate vicinity of the diversion structures:

- a. Floating debris, oil, grease, scum, foam, or any other materials on the water surface that may create a nuisance condition, or that may in any way interfere with attainment and maintenance of designated uses of the water.
- b. Settleable solids, sediments, sludge deposits, or suspended particles that may coat or cover submerged surfaces and create a nuisance condition, or that may in any way interfere with attainment and maintenance of designated uses of the water.
- c. Any pollutants, including those of a thermal, toxic, corrosive, bacteriological, radiological, or other nature, that may interfere with attainment and maintenance of designated uses of the water; may impart undesirable odors, tastes, or colors to the water or to aquatic life found therein; may endanger public health; or may result in dominance of nuisance species.
- d. The discharger has demonstrated compliance with the "presumption" approach for compliance during wet weather with water quality standards. If more stringent applicable water quality standards are promulgated or

approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards

2. The discharger shall design, construct, and operate storm flow control and treatment facilities to achieve a long term treated overflow average as follows:

Structures No. 9 to 17 (Northshore)	4 per year
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Structures No. 18 to 35 (Central Bay)	10 per year
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Structures No. 36 to 43 (Southeast)	1 per year
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The discharger has prepared a facilities operation plan which is consistent with the following objectives:

- a. Maximize the volume of waste water treated at either the Southeast or North Point treatment plant and discharged via outfalls, consistent with the hydraulic and treatment capacities of the discharger's storage, transport and treatment facilities, and
- b. Assure that all discharges from the diversion structures are first baffled to reduce floatables volume.

The operation plan will be used by the Regional Board staff to assess compliance with the requirements above. Draft additions to the operation plan shall be submitted to the Board at least two months prior to activation of new storage/transport facilities. The discharger may propose amendments, which are also subject to Executive Officer review and approval. The operation plan may be part of the discharger's Operation and Maintenance Manual (see Provisions).

The discharger's conformance to the operation plan will constitute compliance with these receiving water limitations. Conversely, failure to comply with the plan will consist of non-compliance with these limitations.

3. Upon the completion all wet weather storage/transport systems (1996), the discharger shall capture for treatment, or storage and subsequent treatment, 100% of the Bayside combined sewage volume collected in the combined sewage system during precipitation events under design conditions. Captured combined sewage shall be directed either to the Southeast plant, North Point plant, or to the storage/transport.

All combined sewage captured shall receive a minimum of one of the following treatments:

- (i) Flow-through treatment (storage/transport.), or
- (ii) Primary treatment (North Point plant.), or
- (iii) Primary treatment (Southeast plant.), or
- (iv) Secondary treatment (Southeast plant.)

E. PROVISIONS

1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 89-102 and Order No. 89-119. Order No. 89-102 and Order No. 89-119 are hereby rescinded.
2. Order No. 84-28 remains in effect for purpose of enforcement of Cease and Desist Order No. 88-105. For all other purposes, this Order supersedes requirements prescribed by Order No. 84-28.
3. The discharge of pollutants shall not create a nuisance as defined in the California Water Code.
4. The discharger shall comply with all sections of this Order immediately upon adoption.
5. The long term average overflow frequency prescribed in this Order is based on information available at the time of adoption of this Order. If the Board finds that changes in the location, intensity or importance of affected beneficial uses or demonstrated unacceptable adverse impacts as a result of operation of the constructed facilities have occurred they may modify the long-term average overflow frequency. Such action could require the modification of constructed facilities, the modification of the operation of constructed facilities, or the construction of additional facilities.
6. Warning signs shall be posted at sites when water contact recreation is enjoyed by the public whenever there is a discharge from the diversion structures. Such warning signs should be posted on the same days as the overflow unless the overflow occurs after 4:00 pm, in which case the signs should be posted by 9:30 am the next days. The warning signs should remain up until receiving water analyses indicate that Basin Plan objectives for swimming or other water contact recreation are being met. The current practice of posting signs for the entire wet weather season may continue at beaches adjacent to diversion structures not yet

meeting the required overflow frequency, until such time as new facilities are put into service to reduce overflow frequency.

7. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by July 15 of each year. Documentation of operator input and review shall accompany each annual update.
8. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.
9. The Discharger shall comply with the attached Self-Monitoring Program. The Executive Officer may make minor amendments to it pursuant to federal regulations (40 CFR 122.63).
10. The Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements, and Definitions," dated August 1993, with the exception of items A.18, B.2, C.8, C.10(b), C.11, and D.5.
11. This Order expires on February 15, 2000. The Discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
12. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not be come effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 15, 1995.


STEVEN R. RITCHIE
Executive Officer

Attachments:

- A. Self-Monitoring Program
- B. Standard Provisions and Reporting Requirements - August 1993
- C. Table I. Locations of the diversion structures
Table II. Geographic Positions of the CSO Structures

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CITY AND COUNTY OF SAN FRANCISCO
BAYSIDE WET WEATHER FACILITIES
AND NORTHPOINT WATER POLLUTION CONTROL PLANT
SAN FRANCISCO COUNTY

NPDES NO. CA 0038610

ORDER NO. 95-039

CONSISTS OF

PART A, dated August 1993

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS FOR BAYSIDE WET WEATHER FACILITIES

A. COMBINED SEWER OVERFLOW

Station	Description
O-1 Mariposa Street	at Mariposa Pump Station Overflow
O-2 Selby Street	at Selby CSO outfall
O-3 Sunnydale	at Sunnydale CSO outfall
O-4 Pierce Street	at foot of Pierce Street at the outfall
O-5 Yosemite/Fitch	Yosemite CSO outfall
O-6 6th and Berry Street	at Channel Consolidation System CSO outfall

B. SHORELINE STATIONS

S-202.1	Crissy Field West
S-202.2	Crissy Field Central
S-202.3	Crissy Field East
S-203	End of Lyon Street - outer beach
S-210	Aquatic Park Beach West End
S-211	Aquatic Park Beach East End
S-301	Candlestick Point SRA Fishing Pier
S-301.1	Candlestick Point SRA windsurfing
S-300.1	Candlestick Point SRA windsurfing area west
S-301.2	Candlestick Point SRA (Jack Rabbit Beach)

II. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS FOR BAYSIDE WET WEATHER FACILITIES

A. OVERFLOW STATION

Effluent sampling from the stations O-1 to O-6 will be required only during discharge events, which may last from less than an hour to over a day. Composite sampling shall commence with 1 hour to over a day. Composite sampling shall commence with 1 hour after a discharge begins and continue until the discharge ceases, but not to exceed 24 hours. Sample shall be taken according to the following schedule:

<u>Parameter</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Flow (mgd) ⁶	Continuous	Continuous during discharge
COD (mg/l)	C-X ¹ (X<24)	1/month
Suspended Solid	C-X ¹ (X<24)	1/month
Ammonia as N	C-X ¹ (X<24)	1/month
Oil and Grease ² (mg/l)	C-X ⁵ (X<24)	1/month
pH	C-X ⁵ (X<24)	1/month
Trace Metals ^{3&7}	C-X ¹ (X<24)	No more than 1/month
PAH ^{4&7} (ug/l)	C-X ¹ (X<24)	No more than 1/month
Pesticides & PCB's	C-X ¹ (X<24)	⁷

Notes:

- ^{1.} Composite sample (1/hour) over x hours (the duration of the discharge), not to exceed 24 hours.
- ^{2.} May use composite sample if Standard Methods used to assure accurate results. Otherwise, use three grab samples taken at two hour intervals with the first taken during the first hour of discharge.
- ^{3.} Measure concentrations of ten metals: arsenic, cadmium, chromium (hexavalent or total), copper, lead, mercury, nickel, silver, zinc, and selenium.

4. Polynuclear aromatic hydrocarbons, as identified in EPA Method 610. Total PAH's shall be as defined in the California Ocean Plan. appendix I (SWRCB, 1990)
5. Grab samples required only during daylight hours.
6. The discharger may use models to estimate flow, given the difficulty of directly measuring flow from diversion structures. Such models should account for all applicable inputs and outputs to the sewer system and should be calibrated at least once every two years for each overflow station.
7. Sample the first and second discharge events of the season, 2 winter events in December or January and 2 spring evnts in March or April.

B. SHORELINE STATIONS

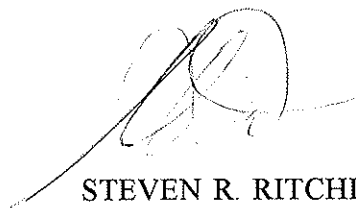
The listed stations shall be monitored 3/week. Monitoring shall include (i) sampling and analysis for total coliform bacteria and (ii) standard observations (including presence of foam, floating materials, odors, or other evidence of pollutants, and date, time, and tidal stage).

III. DESCRIPTION OF SAMPLING STATIONS FOR NORTH POINT WATER POLLUTION CONTROL PLANT

A. INFLUENT STATION	<u>DESCRIPTION</u>
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment
B. EFFLUENT STATION	DESCRIPTION
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (may be the same as E-001 -D)
E-001-D	At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board order No. 95-039.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer.



STEVEN R. RITCHIE
Executive Officer

Effective Date

2/15/95

Order No.

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS(1)

(City and County of San Francisco Bayside Wet Weather Facilities and North Point WPCP)

Sampling Station	A-001		E-001		E-001-D			
	C-X	G	C-X	G	C-X	G		
Type of Sample								
Flow Rate (mgd)	cont.	cont.						
BOD, 5-day, 20 C, or COD (mg/L & kg/day)	M		M					
Chlorine Residual & Dosage (mg/L & kg/day)				H				
Settleable Matter (ml/l-hr. & cu.ft./day)	H		H					
Oil and Grease (mg/L & kg/day)		E(2)		E(2)				
Coliform (Total or Fecal) (MPN/100ml) per req't				E(4)		E(4)		
Fish Toxicity 96-hr. Flow-thru (%survival in undilute waste)			(3)					
Arsenic (mg/L & kg/day)			(3)					
Cadmium (mg/L & kg/day)			(3)					
Chromium, Total (mg/L & kg/day)			(3)					

Order No.

TABLE 1 (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

<i>(City and County of San Francisco Bayside Wet Weather Facilities and North Point WPCP)</i>									
Sampling Station	A-001		E-001		E-001-D				
Type of Sample	C-X	G	C-X	G	C-X	G			
Copper (mg/L & kg/day)			(3)						
Cyanide (mg/L & kg/day)			(3)						
Silver (mg/L & kg/day)			(3)						
Lead (mg/L & kg/day)			(3)						
Mercury (mg/L & kg/day)			(3)						
Nickel (mg/L & kg/day)			(3)						
Zinc (mg/L & kg/day)			(3)						
Selenium (mg/L & kg/day)			(3)						
Phenolic Compounds (mg/L & kg/day)			(3)						
EPA Methods 608 & 610			(3)						

LEGEND FOR TABLE

TYPES OF SAMPLES

- G = grab sample
- C-24 = composite sample - 24-hour
- Cont. = Continuous sampling
- O = Observation

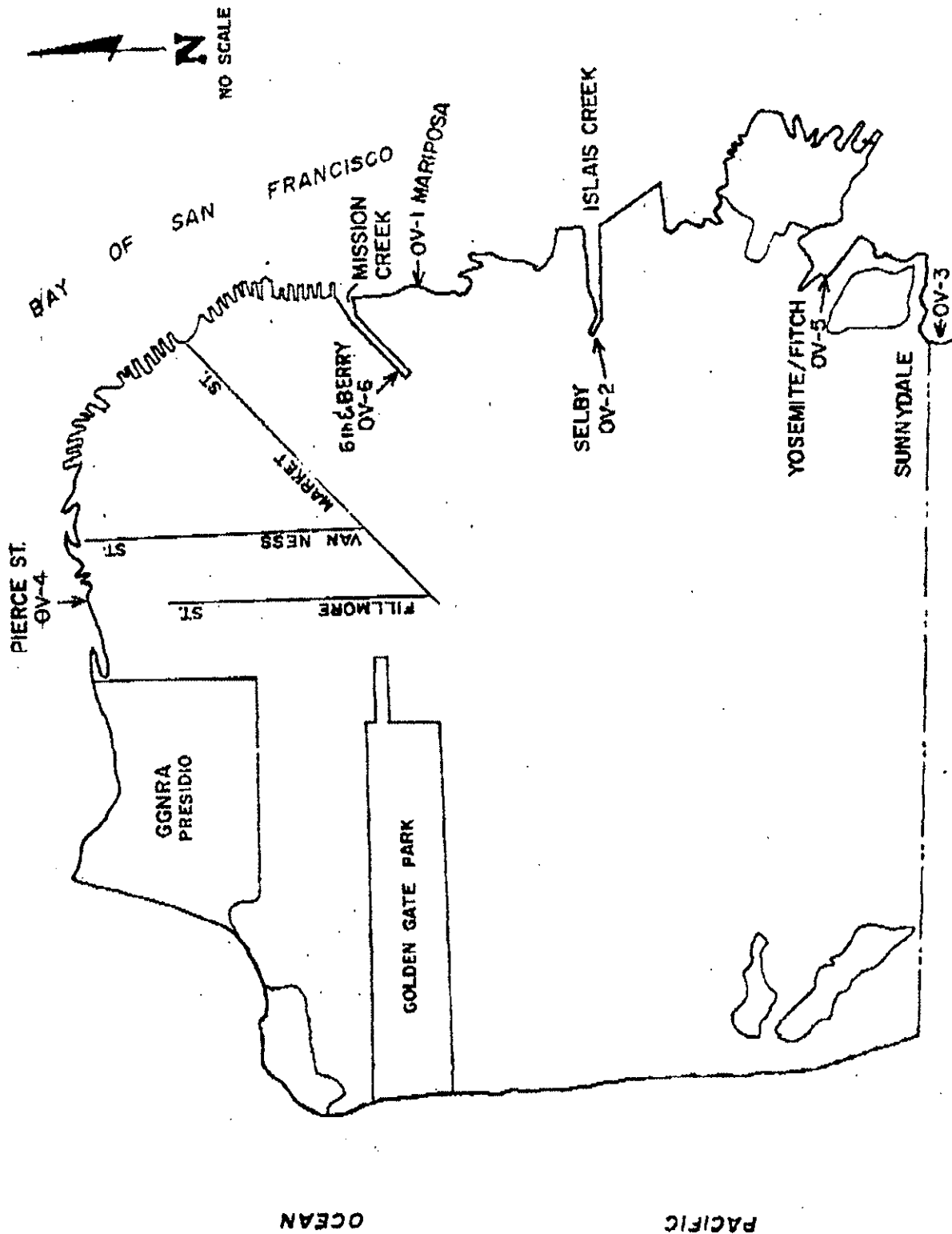
FREQUENCY OF SAMPLE

- | | | |
|---------------------|--|---------------------|
| E = each occurrence | 2/H = twice per hour | 2H = every 2 hours |
| H = once each hour | 2/W = 2 days per week | 2D = every 2 days |
| D = once each day | 5/W = 5 days per week | 2W = every 2 weeks |
| W = once each week | 2/M = 2 days per month | 3M = every 3 months |
| Y = once each year | 2/Y = once in March and
once in September | Cont. = continuous |

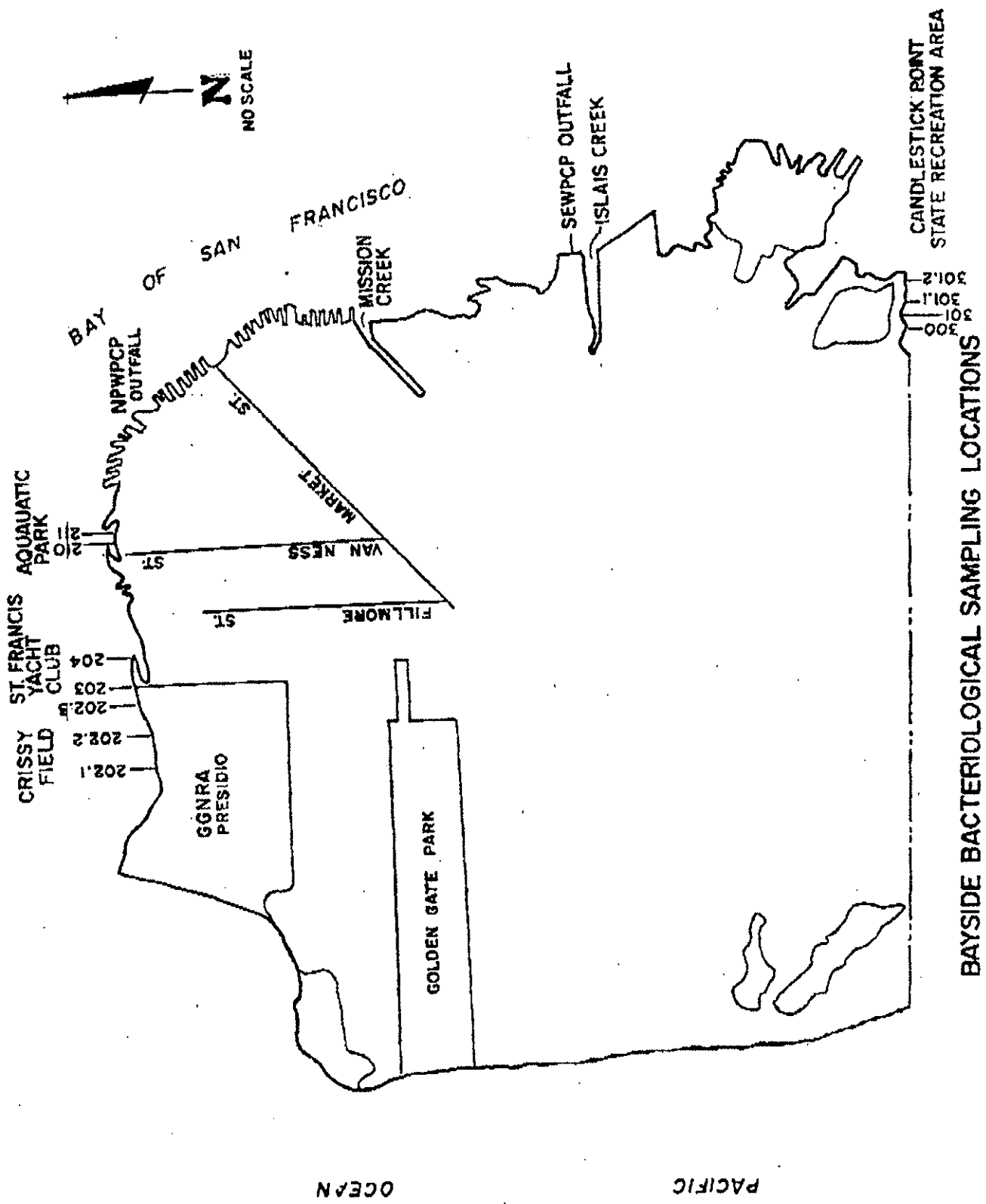
NORTH POINT WATER POLLUTION CONTROL PLANT

Foot notes for Table I

- (1) Hourly for first four hours of discharge and every 6 hours thereafter.
- (2) Three grab samples taken at 2 hour intervals, collected in glass containers and analyzed separately. The weighted average, based upon flow rate, of the three samples shall be calculated.
- (3) Sample the first and second discharge event of the season, 2 winter events on December or January and 2 spring events in march or April.
- (4) Sample shall be collected 4 hours + 30 minutes after discharge start (between 4:00 AM and 5:00 PM); sample shall be collected first thing in the morning if the plant begins operation after 5:00 PM or before 4:00 PM.



BAYSIDE COMBINED SEWER OVERFLOW SAMPLING LOCATIONS



BAYSIDE BACTERIOLOGICAL SAMPLING LOCATIONS

SAN FRANCISCO BAY SAMPLING STATIONS

NORTHSHORE STATION (see figure 1)

201	Fort Point
202	Coast Guard Station
202.1	Crissy Field - West
202.2	Crissy Field - Central
202.3	Crissy Field - East
203	End of Lyon Street
204	Lyon street Beach
205	Foot of Pierce Street
206	Foot of Webster Street
207	Gas House Cove
208	Alcatraz Pier
209	Mini Pier - East
210	Aquatic Park - West
211	Aquatic Park - East
212	Mini Pier - West
213	Foot of Leavenworth Street
214	Fisherman's wharf
215	Pier 39
216	Pier 33
217	Pier 17 & 19
218	Pier 7 & 9

NORTHSHORE STATION

219	Pier 1 1/2
220	Foot of Howard
221	Pier 38
222	3rd Street Bridge at Channel
223	Channel at 5th
224	Channel at 6th
225	Channel at 7th
301	Candlestick Park - Pier
301.1	Windsurfer's Cove
301.2	Jackrabbit Beach
302.1	Fitch Street
302.2	End of Yosemite Street
303	End of Griffith Street
304	End of Hudson Street
305	Pier 96
306	3rd St. Bridge at Islais Creek
307	Pier 80
308	End of 20th Street
309	End of Mariposa Street
310	Mission Rock Pier
311	Pier 50

Table II.

NORTHPOINT AND SOUTHEAST SEWERAGE ZONES

GEOGRAPHIC POSITIONS OF THE CSO STRUCTURES

Num.	Name	Deg.	Latitude		Deg.	Longitude	
			Min.	Sec.		Min.	Sec.
9	Baker St.	37	48	29	122	26	48
10	Pierce St.	37	48	25	122	26	24
11	Laguna St.	37	48	22	122	25	53
13	Beach St.	37	48	30	122	24	24
15	Sansome St.	37	48	24	122	24	11
17	Jackson St.	37	47	54	122	23	41
18	Howard St.	37	47	35	122	23	24
19	Brannon St.	37	47	7	122	23	24
22	Third St. No.	37	46	38	122	23	22
23	Fourth St. No.	37	46	32	122	23	29
24	Fifth St. No.	37	46	26	122	23	38
25	Sixth St. No.	37	46	19	122	23	46
26	Division St.	37	46	13	122	23	51
27	Sixth St. So.	37	46	17	122	23	42
28	Forth St. So.	37	46	30	122	23	28
29	Mariposa St.	37	45	53	122	23	7
30	20th Street	37	45	40	122	22	48
30A	22th Street	37	45	28	122	22	49
31	Third St. No.	37	44	52	122	23	10
32	Marin St.	37	44	55	122	23	27
33	Selby St.	37	44	52	122	23	27
35	Third St. So.	37	44	50	122	23	10
37	Evans Ave.	37	44	9	122	22	28
38	Hudson Ave.	37	44	0	122	22	26
40	Griffith St. So.	37	43	23	122	22	56
41	Yosemite Ave.	37	43	26	122	23	8
42	Fitch St.	37	43	20	122	22	55
43	Sunnydale Ave.	37	42	32	122	23	29

Notes:

All outfalls discharge at the shoreline except Baker St.

Baker St discharges 290' offshore at - 30'MLLW

Table I.

Active CSO Structures

No.	Discharge Name	CSO size: Diam or W x H	Elevation		Discharge Location	Overflows per year	Control Program	Notes
			Crown (1)	Weir (2)				
9	Baker St.	9'	-20.00	-2.00	Marina Bch	4	NSOC	(3)
10	Pierce St.	7'	-6.63	-4.00	Marina Bch	4	NSOC	(3)
11	Laguna St.	6'	-1.00	NA	Marina Bch	4	NSOC	(3)
13	Beach St.	7'x6'	-5.00	-3.51	Pier 39	4	NSOC	(3)
15	Sansome St	2ø 5'6"x6'6"	-4.00	NA	Pier 31	4	NSOC	(3)
17	Jackson St.	8'x9'6"	-3.50	-3.90	Pier 3	4	NSOC	(3)
18	Howard St.	7'6"	-4.92	-3.00	Pier 14	10	COC	(4)
19	Brannan St.	7'6"x6'	-5.97	-3.75	Pier 32	10	COC	(4)
22	Third St.	2'6"x3'9"	-7.25	-3.50	Channel St.	10	COC	(4)
23	Fourth St.	6'6"	-4.00	-3.50	Channel St.	10	COC	(4)
24	Fifth St.	9' x 7'	-5.00	-3.50	Channel St.	10	COC	(4)
25	Sixth St./N	10'x7', 6'	-5.50	-3.50	Channel St.	10	COC	(4)
26	Division St.	4ø 9'6"x8'3"	+0.75	-3.50	Channel St.	10	COC	(4)
27	Sixth St./S	3'6"x5'3"	-2.25	-3.11	Channel St.	10	COC	(4)
28	Fourth St/S	2'6"x3'9"	-7.25	-3.50	Channel St.	10	COC	(4)
29	Mariposa S.	6'	-4.40	NA	Central Bsn	10	—	(5)
30	Twentieth	42"	-9.00	-3.00	Central Bsn	10	—	(5)
31	No. 3rd St.	3'6"x5'3"	-6.25	-3.00	Islais Crk.	38	—	(6)
32	Marin St.	10'x8'	-4.00	-3.00	Islais Crk.	38	—	(6)
33	Selby St.	3ø 10'x7'6"	-2.50	-3.00	Islais Crk.	38	—	(6)
30A	22nd St.	2'	NA	-2.70	Central Bsn	10	—	(14)
35	S/ 3rd St.	4'6"	-7.70	-3.00	Islais Crk.	38	—	(8)
37	Evans Ave.	6'	+0.27	+1.30	India Bsn .	1	—	(8)
38	Hudson St.	2'	+1.00	+7.00	India Bsn.	1	—	(8)
40	Griffith /S	5'6"	-4.45	-2.50	South Bsn..	1	—	(9)
41	Yosemite A	weir 146' long	NA	-2.70	South Bsn.	1	—	(10)
42	Fitch St.	6'9"	-4.35	-2.70	South Bsn.	1	—	(10)
43	Sunnydale	weir 158' long	NA	-2.60	Cndlstk Cove	1	—	(11)

Source: Department of Public Works, 1992.

Notes:

- (1) Elevation based on City datum - crown of outfall at shoreline.
- (2) Elevation based on City datum - weir height where overflow occurs from collection system.
- (3) NSOC - North Shore Outfalls Consolidation.
- (4) COC - Channel Outfalls Consolidation.
- (5) Mariposa Transport Storage.
- (6) Control-planned -- Islais Creek Transport Storage.
- (7) ICOC - Islais Creek Outfalls Consolidation (See 14).
- (8) Hunters' Point Transport Storage.
- (9) Griffith Pump Station.
- (10) Yosemite-Fitch Outfall.
- (11) Sunnydale Transport Storage.
- (12) Outfalls No.'s 1-8 are governed by NPDES Permit No. CA0038415.
- (13) Outfalls No.'s 12, 14, 16, 20, 21, 34, 36 and 39 have been abandoned.
- (14) Existing storm drain which was converted to combined sewer outfall as part of the Mariposa Transport Project.